



Thirty-sixth Regular Meeting of the Executive Committee

## **Integrated Risk Management in Agriculture**

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### **Statement of the issue and background**

As an economic activity, agriculture faces a number of risks posed by a wide range of factors, mainly risks that affect production as well as commercial, financial, institutional and social aspects. Climatic variability, pests and diseases, as well as losses in different chain links, are some of the factors that impact agricultural production. Market risks, which stem from changes in sale and purchase conditions, and price volatility, affect the economic efficiency and competitiveness of agriculture. On the other hand, liquidity crises and insolvency represent financial risks that can force production units and agricultural companies into bankruptcy. Policies that are constantly changing cause problems like corruption, generate mistrust, and debilitate institutions responsible for providing support, information and stability to agriculture.

Decades ago, IICA initiated cooperation actions geared toward the creation of agricultural commodity exchanges with the aim of reducing market risks. These actions strengthened the institutional framework of commodity exchanges in several countries and played a critical role in the establishment of the Pan American Association of Agricultural Commodity Exchanges. In 2005, pursuant to the mandate of the Inter-American Board of Agriculture, the Institute initiated technical cooperation activities focused on strengthening the agricultural insurance market in the Member States, and becoming a leader in this topic at the hemispheric level.

Given the fact that prevention, mitigation, and technology transfer actions can help to diminish agriculture's vulnerability to the abovementioned risks, IICA recently concentrated its efforts on integrated risk management (IRM). The objective of this presentation is to report to the Executive Committee on the recent outstanding results achieved by technical cooperation activities in the area of integrated risk management in agriculture.

### **Main achievements**

The Institute has adopted a strategy and conceptual framework for integrated risk management in agriculture (FAO-ECLAC-IICA technical bulletin, 2015; Strengthening Agribusiness Risk Management Capacities, IICA, 2013; Development of Successful and Sustainable Agricultural Insurance Programs, IICA, 2013). The strategy is based on four pillars:

- The identification of risks faced by agriculture via knowledge management, and the creation of tools such as market information systems, early warning systems, risk maps and agro-climatic information systems with the aim of supporting timely decision-making to diminish losses and vulnerability to risks.
- The promotion of risk adaptation and mitigation strategies through good agricultural and environmental practices that strengthen the resilience of agricultural production.
- The transfer of risks through the use of different tools such as insurance, contract agriculture and futures markets.

- Policymaking and the strengthening of institutional risk management capacities, and, where appropriate, the promotion of actions to revert negative impacts on agriculture.

As part of the Flagship Project entitled “Resilience and Integrated Risk Management in Agriculture” (RIRMA), the Institute has created manuals and documents offering strategic guidance on IRM in the hemisphere, in order to foster institutional capacity-building for managing agribusiness risks and agro-climatic risks; publications on the state-of-the-art of agricultural insurance; materials on integrated risk management and agricultural insurance for distance learning courses; as well as hemispheric risk assessment tools and an observatory, via an interactive online portal on integrated risk management and agricultural insurance in the Americas. Inventories of risk maps and methodologies for implementing them in Paraguay, Colombia, the ECS and Trinidad & Tobago have also been created within the framework of the Flagship Project, in addition to manuals on agribusiness risks for Bolivia, Panama, Paraguay, Nicaragua, Guatemala, Uruguay, the ECS, Guyana and El Salvador. Technical forums were held to promote integrated risk management in the hemisphere through the dissemination of information and creation of innovative IRM policies, institutional models and instruments. With support from IICA, an office for conducting integrated risk management in Chile was set up.

Regarding good agricultural practices (GAP) for mitigating and adapting to climatic and environmental risks, different varieties of roots and tubers, corn, tomato, and forage were assessed via the EU-IntraACP project, in order to reduce the risk of agricultural and livestock losses in 10 Caribbean countries. Within the framework of the Flagship Project, tools were developed to identify and measure losses throughout different chains in four Central American countries, six countries in South America, one Caribbean country. The tool was implemented in Peru. Through the ECONORMAS project, strategies for conducting water harvesting and using water efficiently were implemented in countries of the Southern Cone. Through the RIRMA FP, forums and training events on water and soil management have been carried out in South American, Central American and the Caribbean countries, and the results have been presented at events held in Mexico. The Flagship Project also organized a workshop on GAP for resilient agriculture in the face of climate change, with participants from Belize, Costa Rica, El Salvador, Honduras, Guatemala, Nicaragua, and Panama. Experts from Argentina, Brazil, and Costa Rica provided their support. A total of 109 technical officers from five Caribbean countries received training in GAP for developing climate-smart agriculture.

The experience of Costa Rica with animal and plant health risks, and aiding animals in disasters in particular, was systematized, and policy guidelines on this topic were developed in Brazil. Tick control guidelines were created and validated in the Andean region. A total of 32 technical officers from seven countries received training in the strengthening of veterinary services in the face of climate change; experts from the United States, Costa Rica, Chile, and Brazil provided their support. A simulation on dealing with avian diseases was carried out in Honduras with the participation of technical personnel from the public and private sectors, policemen and city hall personnel.

In the area of phytosanitary risk management, an analysis of the economic impact of *Huanglongbing* on Argentina’s citrus production was carried out. Together with OIRSA, 102 technical officers from 12 Latin America countries received training. Five Andean countries, the United States, Costa Rica, Argentina, and



Antigua shared their experiences with snail control. A methodology for establishing a participatory early warning system was developed and applied, and 10 technical officers in Paraguay and 13 in Peru received training. This methodology was validated in Peru. A tool for analyzing the institutional framework of the sector that deals with bio-inputs for controlling phytosanitary risks was developed for use in Nicaragua, Argentina, Ecuador, and Guyana; 60 technical officers received in-person training and 40 received virtual training in Peru.

The management of market and financial risks was addressed via training activities carried out in Peru on the design and implementation of tools for managing price risks. The activities were carried out within the framework of the Flagship Project entitled “Competitiveness and Sustainability of Agricultural Chains for Food Security and Economic Development” (CSAC FP), and were made possible through horizontal cooperation between Peru, Chile, and Mexico. As part of the Flagship Project, hemispheric forums and workshops were held to share World Trade Organization rules, topics, and decisions that impact international trade. Together with the Market Information Organization of the Americas, the capacities of 33 member countries in the area of agricultural market information systems were improved; the objective is for markets to operate in a more transparent way and be more accessible, safe, stable and predictable. Capacity-building efforts were carried out in 11 countries of Central America, South America, and the Caribbean, to strengthen the management of farmers’ associations and their incorporation into formal markets. In the United States and 10 Latin American countries, value-added trading schemes that facilitate coordination between small and medium-scale farmers and markets were analyzed. At the local level in Ecuador, a plan was drafted for the construction of a center for agro-industrial technology transfer in the city of Ambato. As part of the EU-IntraACP project in the Caribbean, financial management capabilities and the ability to identify producers and companies eligible for loans were evaluated and strengthened, suppliers were identified, and guidelines for funding the sweet potato chain were drafted.

In order to build capacities with regard to the management of institutional risks, the policies of the United States, Brazil, Canada, Chile, the European Union, Central America, and China were analyzed within the framework of the CSAC Flagship Project and CAESPA. The results of the analysis were shared with over 3000 stakeholders in the Institute’s 34 member countries, through presentations, videos, and technical documents available online.

### **Forward-looking approach**

In recent years, most IICA member countries have experienced catastrophic climatic phenomena that have generated losses (of up to 40% in the case of some foods) in family agriculture, the segment of the agricultural sector that is most vulnerable to risks. Agriculture’s exposure to risk factors has progressively increased, and this trend is expected to continue in the future. For this reason, IICA recommends undertaking a more coordinated effort through strategic partnerships in order to support a systemic vision of IRM, risk management strategies in the member countries, and the strengthening of institutions responsible for these tasks. This effort will also require greater coordination and complementarity between the technical cooperation instruments and the Institute’s various units. The majority of efforts geared toward managing high-priority risks should be undertaken through regional, multinational, and hemispheric initiatives, such as the EU-funded Central American Program for Integrated Management of Coffee Leaf Rust, whose implementation is set to begin this year in seven countries.